Permit Fact Sheet

General Information

Permit Number:	WI-0064971-02-1
Permittee Name:	Snudden Farms LLC
Address:	N764 Zenda Road, Lake Geneva (Home Farm) N959 Zenda Road, Lake Geneva (Heifer Site) W4322 Linton Road, Lake Geneva (Merwin Site)
City/State/Zip:	Lake Geneva WI 53147
Discharge Location:	North Branch of Nippersink Creek Watershed within the Mississippi River Basin, and groundwaters of the state

Animal Units					
	Current AU		**Proposed AU** **(Note: If all zeroes, expansions are not expected during permit term)**		
Animal Type	**Mixed**	**Individual**	**Mixed**	**Individual**	**Date of Proposed Expansion**
Milking and Dry Cows	3465	3539	0	0	
Heifers (400 lbs. to 800 lbs.)	390	650	0	0	
Heifers (800 lbs. to 1200 lbs.)	1623	1475	0	0	
Total	5478	3539	0	0	

Facility Description

This permit action is a modification to the existing permit: WI-0064971-02-0. Snudden Farms LLC constructed a waste storage facility to contain feed storage runoff. This permit modification documents the addition of the manure sample point for the newly constructed waste storage facility. Additionally, a new feed storage area was constructed. The existing feed storage area and associated runoff controls are planned to be removed/abandoned.

Snudden Farms LLC is an existing Concentrated Animal Feeding Operation (CAFO) located in the Township of Linn in Walworth County. Snudden Farms LLC is owned and operated by Steve Snudden. The current herd size is 5,478 animal units (2,475 milking/dry cows and 2,125 heifers). There are no proposed herd expansions over the permit term. Snudden Farms now produces 50 million gallons of liquid manure and process wastewater and approximately 24, 500 tons of solid manure annually. The current total usable liquid storage capacity is approximately 30 million gallons, or the capacity for approximately 217 days of storage. Snudden Farms owns and rents approximately 4,034 acres of cropland, of which 4,034 acres are available for manure application.

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**	
001	WSF 1- Sample point 001 is for the liquid waste storage facility located at the Main Site. WSF 1 is a liquid-tight concrete lined storage located east of the freestall barns. The facility has a capacity of 2.4 million gallons and was built in 2006. This storage accepts manure and process wastewater from barns, and the milking parlor.	
002	WSF 2- Sample point 002 is for the liquid waste storage facility located at the Main Site. WSF 2 is a liquid-tight concrete lined storage located east of the freestall barns. The facility has a capacity of 3.56 million gallons and was built in 2013. This storage accepts manure and process wastewater from barns, and the milking parlor.	
003	WSF 3- Sample point 003 is for the liquid waste storage facility located at the Main Site. WSF 3 is a liquid-tight concrete lined storage located east of the freestall barns. The facility has a capacity of 6.3 million gallons and was built in 2016. This storage accepts manure and process wastewater from barns, and the milking parlor.	
004	General Solid Manure- Sample point 004 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure etc. Representative samples shall be taken for each manure source type.	
005	Headland Stacking Solid Manure- Sample point 005 is for solid manure stacked in approved headland stacking locations. Representative samples shall be taken of this manure prior to land application. Note: headland stacking sites are subject to production site discharge limitations; weekly visual monitoring is required during use of stacking sites to ensure discharges to waters of the state do not occur.	
006	Feed Storage & Runoff Controls- Sample point 006 is for visual monitoring and inspection of the feed storage area and associated runoff control system at the Main site. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to the monitoring program.	
007	WSF 4- Sample point 007 is for the liquid waste storage facility located at the Heifer Site. WSF 4 is a concrete lined storage located east of the freestall barn. The facility has a capacity of 650,000 gallons and was built in 2008. This storage accepts manure and process wastewater from barn and calf hutch area.	
008	Sand Separation Area- Sample point 008 is manure laden sand generated from the sand separation area that will be directly land applied or headland stacking from this structure.	
009	Calf Hutch Area and Runoff Controls- Sample point 009 is for visual monitoring and inspection of the calf hutch area and associated runoff control system located at the Heifer site. Proper operation and maintenance is required to ensure discharges to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program.	
010	Feedlot and Runoff Controls- Sample point 010 is for visual monitoring and inspection of the feedlot and associated runoff control system located at the Merwin Site. Proper operation and maintenance is required to ensure discharges to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program.	
011	Storm Water Runoff Control- Sample point 011 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water.	

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**	
	Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process waste water handling systems. Weekly inspections are required and shall be recorded according to the monitoring program.	
012	WSF 5- Sample point 012 is for the liquid waste storage facility located at the Main Site. WSF 5 is a concrete lined storage located east of the freestall barn. The facility has a capacity of 18,500,000 gallons and was built in 2021. This storage accepts process wastewater from the feed storage area and other manure if necessary.	

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation's production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year, 24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must submitted to the Department for approval.

Manure and Process Wastewater Storage

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must submitted to the Department for approval.

The permittee currently has approximately 7 months of storage for liquid manure. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

Solid Manure Stacking

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

Nutrient Management

With 2,475 milking/dry cows and 2,125 heifers, it is estimated that approximately 50 million gallons of manure and process wastewater will be produced per year. The permittee owns and/or rents *approximately* 4,034 acres of cropland. Given the rotation commonly used by the permittee, 4,034 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

The permittee is required to implement a number or practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permitee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq$12% solids) on frozen or snow-covered ground during February and March. Beginning October 1, 2019, non-emergency surface applications of liquid manure (<12%) on frozen or snow-covered ground are prohibited.

Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

Sampling Points

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as "Sampling Points." For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by

the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

Sample Point Number: 001- WSF 1; 002- WSF 2; 003- WSF 3; 007- WSF 4, and 012- WSF 5

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Total		lb/1000gal	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		lb/1000gal	2/Month	Grab	
Phosphorus, Available		lb/1000gal	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

1.1.1 Changes from Previous Permit

Sample point 012-WSF 5 added through the construction of a new waste storage facility.

1.1.2 Explanation of Operation and Management Requirements

Wastes shall be stored and land applied according to the permit and nutrient management plan.

Sample Point Number: 004- General Solid Manure ; 005- Headland Stacking Solid Manure; 008- Sand Separation Area

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Total		lbs/ton	Quarterly	Grab	
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		lbs/ton	Quarterly	Grab	
Phosphorus, Available		lbs/ton	Quarterly	Calculated	
Solids, Total		Percent	Quarterly	Grab	

1.1.3 Changes from Previous Permit

No changes

1.1.4 Explanation of Operation and Management Requirements

Each solid manure source is to be sampled quarterly and tracked. If solids are not removed from a storage facility and/or an approved stacking pad during a quarter, this should be noted on the manure record sheets. Copies of the record sheets shall be submitted with Annual Report.

Sample Point Number: 006- Feed Storage & Runoff Controls; 009- Calf Hutch Runoff Controls; 010- Feedlot & Runoff Controls, and 011- Stormwater Runoff Controls

1.1.5 Changes from Previous Permit

006 Feed Storage & Runoff Controls- sample point remains the same as a standard sampling point for required monitoring of this type of structure and runoff system. Snudden Farms has constructed a new feed storage area and the runoff control system is WSF 5 (Sample point 012). The existing feed storage structure and associated runoff control will be removed/abandoned.

1.1.6 Explanation of Operation and Management Requirements

There is no required sampling for the runoff controls. Rather, there is required inspection and routine maintenance that should be recorded on a monitoring and inspection sheet or calendar. A copy of the record of inspection shall be submitted with the Annual Report.

2 Schedules

2.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	11/01/2019

2.2 Monitoring & Inspection Program

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 90 days of the effective date of this permit.	01/01/2020

2.3 Annual Reports

Required Action	Due Date
Submit Annual Report #1: Submit Annual Report #1: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of Department Form 3400-025E.	01/31/2020
Submit Annual Report #2: Submit Annual Report #2: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of Department Form 3400-025E.	01/31/2021

Submit Annual Report #3: Submit Annual Report #3: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of Department Form 3400-025E.	01/31/2022
Submit Annual Report #4: Submit Annual Report #4: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of Department Form 3400-025E.	01/31/2023
Submit Annual Report #5: Submit Annual Report #5: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of Department Form 3400-025E.	01/31/2024
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

2.4 Nutrient Management Plan

Required Action	Due Date
Management Plan Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section).	
Management Plan Annual Update #1: Submit an Annual Update to the Nutrient Management Plan by March 31st of each year. Note: In addition to Annual Updates, submit Management Plan Amendments to the Department for written approval prior to implementation of any changes to nutrient management practices, in accordance with the Nutrient Management requirements in the Livestock Operational and Sampling Requirements section.	03/31/2020
Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.	03/31/2021
Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.	03/31/2022
Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.	03/31/2023
Management Plan Annual Update #5: Submit an Annual Update to the Nutrient Management Plan.	03/31/2024
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

2.5 Feed Storage Runoff Control System - Engineering Evaluation

Required Action	Due Date
Retain Qualified Expert: The permittee shall retain a qualified expert to complete an engineering evaluation for the feed storage runoff control system and report the name of the expert to the Department.	01/01/2020
Written Description of Existing System: Submit an engineering evaluation that includes a written description of the existing feed storage area and its adequacy to meet the conditions found in the Production Area Discharge Limitations subsection and NR 243.15, Wis. Adm. Code.	03/01/2020
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse conditions identified as part of the engineering evaluation for the feed storage area in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	06/01/2020

Corrections and Post Construction Documentation: Complete construction of improvements to permanently correct any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	01/01/2021

2.6 Permanent Markers - Installation

Required Action	Due Date
Complete Installation: Complete installation of permanent markers. The facility shall be functional and in operation by the specified Date Due. Photo documentation shall be submitted to the department upon installation of markers.	12/01/2019

2.7 Runoff Control System - Engineering Evaluation

Required Action	Due Date
Complete Engineering Evaluation: Retain a qualified expert to complete an engineering evaluation for the Merwin site feedlot runoff control system and report the name of the expert to the Department.	01/01/2020
Written Description of Existing System: Submit a written description of the existing runoff control system and its adequacy to permanently meet the conditions in the Production Area Discharge Limitations and Runoff Control subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	03/01/2020
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse runoff control conditions in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	06/01/2020
Corrections and Post Construction Documentation: Complete construction of runoff controls that permanently correct any adverse runoff control conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	01/01/2021

2.8 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	04/01/2024

2.9 Explanation of Schedules

Schedules are to monitor and fulfill requirements of permit discharge limitations.

Attachments:

Proposed Expiration Date:

September 30, 2024

Prepared By:

Danielle Block Agricultural Runoff Management Specialist

Date: 02/02/2022